

Illustrations of the Type Material of Sesiidae (Lepidoptera) Described by MATSUMURA

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Abstract The genitalia and adults of fifteen type material of Sesiidae described by S. MATSUMURA are illustrated and figured: *Chamanthodon coreacola*, *Conopia chibensis*, *C. chosensis*, *C. galloisi*, *C. mushana*, *C. producta*, *Melittia formosana*, *Paranthrene daisensis*, *P. hirayamai*, *P. yezonica*, *Scasiba taikanensis*, *Sesia quercus*, *Spherodoptera* [sic] *okinawana*, *Zenodoxus shakojianus*, *Z. taiwanellus*.

Key words Type material, MATSUMURA collection, Sesiidae, genitalia.

The aim of present work is to illustrate the genitalia and adults of the type material of Sesiidae described by MATSUMURA. He described 15 new sesiid taxa in his three works (1911 and 1931*a, b*). In the first work, there appeared two new species, *Melittia formosana* and *Sesia quercus*. The remaining 13 new species were described in the “6000 illustrated Insects of Japan-Empire” (published 18th June 1931) in Japanese, though these new names were not followed by the statement as new taxon. In the “*Insecta matsumurana*”, volume 6, number 1 (published October 1931), he described and illustrated again these 13 species in English with a list of Sesiidae known at that time from Japan, Korea and Taiwan. All the lectotypes were designated by RAZOWSKI and KUMATA (1985).

I must express my hearty thanks to Dr. T. KUMATA of Entomological Institute of Hokkaido University, Sapporo, for permitting me in surveying the collection of MATSUMURA.

1. *Chamanthodon coreacola* MATSUMURA, 1931 (Figures 1, 16)

6000 illust. Insects Japan-Empire: 1012, f. 1846.

Type: Lectotype ♂, “Coree, Genzan, 17-8-1919, Edme Gallois”, “*Syn. coreacola* Mats.” [hand writing], “Type Matsumura” [red label], genitalia on slide no. 1318, mounted by Y. ARITA, 1986.

Type locality: Korea (Genzan).

Current status: *Scalarignathia coreacola* (MATSUMURA, 1931), **new combination**.

2. *Conopia chibensis* MATSUMURA, 1931 (Figures 2, 18)

6000 illust. Insects Japan-Empire: 1013, f. 1847.

Type: Lectotype ♂, “Chiba-ken, T. Oguma” [handwriting], “我孫子 [Abiko], 9/VII. 1927.” [underside, hand writing], “*Conopia chibensis* n.” [hand writing], “Type Matsumura” [red label], genitalia on slide no. 1319, mounted by Y. ARITA, 1986.

Paralectotype, 1 ♂, “二日市 [Futsukaichi], 8. 4. [hand writing], Japan, Matsum”,

"*Conopia chibensis* n." [hand writing].

Type locality: Japan (Chiba-ken).

Current status: Synonym of *Synanthedon quercus* (MATSUMURA, 1911) (YANO, 1961).

3. *Conopia chosensis* MATSUMURA, 1931 (Figures 3a-b, 23)

6000 illust. *Insects Japan-Empire*: 1013, f. 1848.

Type: Lectotype ♀, "Corea, Matsumura", "Seoul 1919, E. Gallois" [underside, hand writing], "*Synanthedon chosensis* n." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1301, mounted by Y. ARITA, 1986.

Paralectotypes, 3 ♀, "Corée, Séoul: 31 MAI 1919, Edme Gallois", "Corée, Séoul: 20 JUIN 1919, Edme Gallois", and "Corée: Séoul: 1 JUIN 1922, Edme Gallois" [abdomen missing].

Type locality: Korea (Seoul).

Current status: Referred to *Synanthedon* (HEPPNER and DUCKWORTH, 1981).

4. *Conopia galloisi* MATSUMURA, 1931 (Figures 4, 19)

6000 illust. *Insects Japan-Empire*: 1013, f. 1849.

Type: Holotype ♂, "Corea, Matsumura" "Taiyudong, 1925, E. Gallois" [underside, hand writing], "*Conopia galloisi* n." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1320, mounted by Y. ARITA, 1986.

Type locality: Korea (Taiyudong).

Current status: Synonym of *Synanthedon quercus* (MATSUMURA, 1911) (YANO, 1961).

5. *Conopia mushana* MATSUMURA, 1931 (Figures 5, 24).

6000 illust. *Insects Japan-Empire*: 1013, f. 1851.

Type: Holotype ♀, "Formosa, Musha, 1919, V 18-VI 15, T. Okuni, J. Sonan, K. Miy., M. Yosh", "*C. mushana* Mats." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1315, mounted by Y. ARITA, 1986.

Type locality: Taiwan (Musha).

Current status: Referred to *Synanthedon* (HEPPNER and DUCKWORTH, 1981).

6. *Conopia producta* MATSUMURA, 1931 (Figures 6, 25)

6000 illust. *Insects Japan-Empire*: 1014, f. 1852.

Type: Holotype ♀, "Sapporo, Matsumura", "30-Sept 1926" [underside, hand writing], "*Syn. producta* n. sp." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1323, mounted by Y. ARITA, 1986.

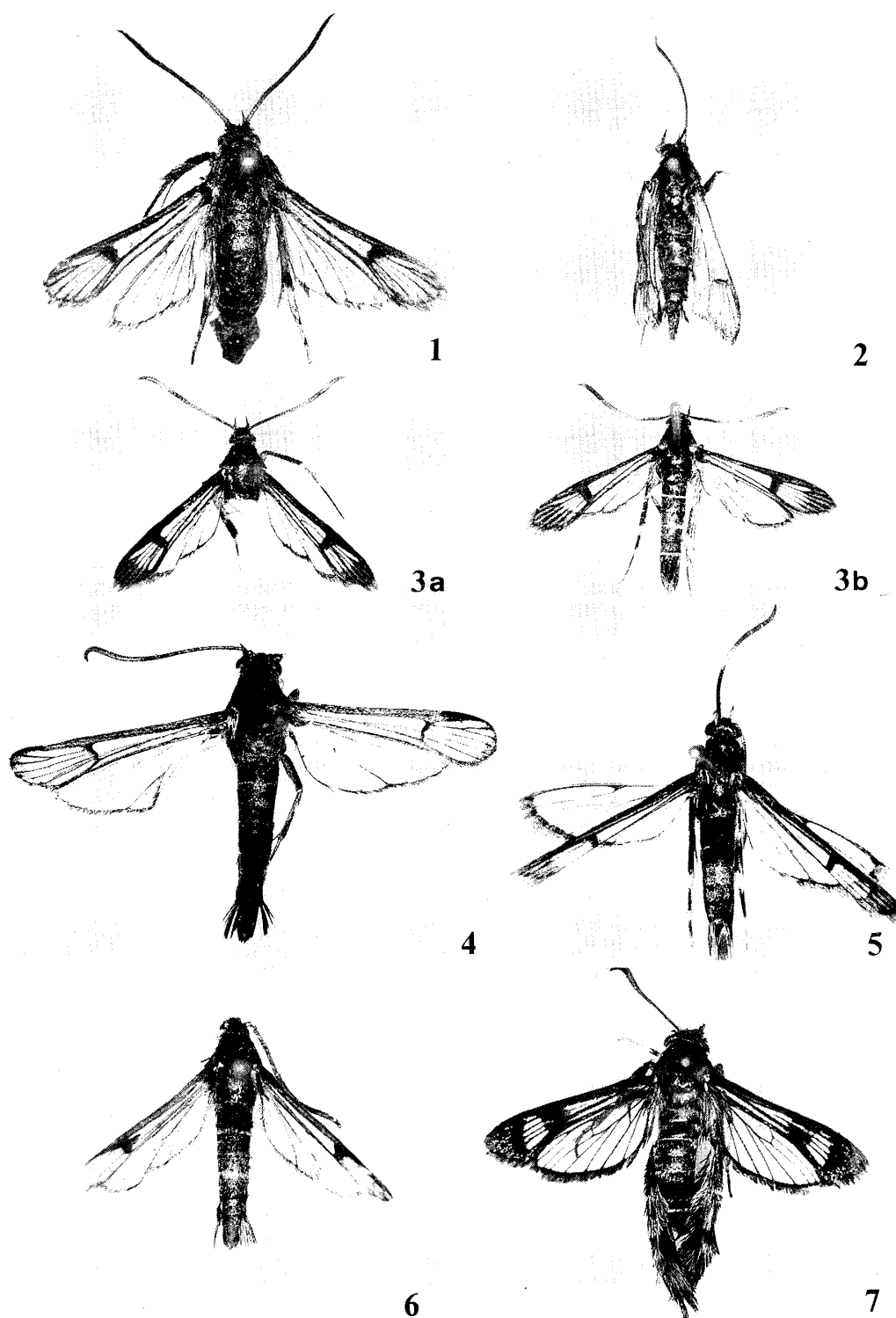
Type locality: Japan (Hokkaido, Sapporo).

Current status: Junior secondary homonym of *Aegeria producta* WALKER, [1865]. Replacement name: *Synanthedon subproducta* INOUE (INOUE, 1982).

7. *Melittia formosana* MATSUMURA, 1911 (Figures 7, 21)

Thousand Insects Japan (Suppl.) 3: 85, pl. 36, fig. 18.

Type: Holotype ♂, "Formosa, Matsumura", "Horisha, 19/VI 08" [underside, hand writing], "Type Matsumura" [red label], "genitalia on slide no. 1326, mounted by Y.



Figs. 1-7. Lectotypes (1, 2, 3a), holotypes (4, 5, 6, 7) and paralectotype (3b) of Sesiidae described by MATSUMURA.

1. *Chamanthedon coreacola*; 2. *Conopia chibensis*; 3a-b. *Conopia chosensis*; 4. *Conopia galloisi*; 5. *Conopia mushana*; 6. *Conopia producta*; 7. *Melittia formosana*.

ARITA, 1986.

Type locality: Taiwan (Horisha).

8. *Paranthrene daisensis* MATSUMURA, 1931 (Figures 8, 26)

6000 illust. *Insects Japan-Empire*: 1016, f. 1861.

Type: Lectotype ♀, "DAISEN, Tottoriken, 17-8-1922, S. Matsumura", "*Paranthrene daisensis* n." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1331, mounted by Y. ARITA, 1986.

Type locality: Japan (Daisen).

Current status: Synonym of *Paranthrene feralis* (LEECH, [1889]) (INOUE, 1958).

9. *Paranthrene hirayamai* MATSUMURA, 1931 (Figures 9, 27)

6000 illust. *Insects Japan-Empire*: 1016, f. 1862.

Type: Holotype ♀, "KOMABA, Tokyo, Japan, 5-3-1914, S. Hirayama, "*Paranthrene hirayamai* n. sp." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1332, mounted by Y. ARITA, 1986.

Type locality: Japan (Tokyo).

Current status: Synonym of *Paranthrene pernix* (LEECH, [1889]) (YANO, 1961).

10. *Paranthrene yezonica* MATSUMURA, 1931 (Figures 10, 17)

6000 illust. *Insects Japan-Empire*: 1017, f. 1866.

Type: Holotype ♂, "Otaru, Ikeda" [hand writing], "*Paranthrene yezonica* n." [hand writing], "*Nokona* n. g. *yezonica* n. [hand writing], det. Matsumura", "Type Matsumura" [red label], ♂ Genitalia on slide No. Agr. 1, mounted by T. KUMATA, 1959.

Type locality: Japan (Hokkaido, Otaru).

Current status: Synonym of *Paranthrene regale* (BUTLER, 1878) (YANO, 1965).

11. *Scasiba taikanensis* MATSUMURA, 1931 (Figures 11, 20)

6000 illust. *Insects Japan-Empire*: 1017, f. 1867.

Type: Lectotype ♂, "Taikan, 18. IV. 1924, T. Shiraki, T. Sonan", "*Syn. taikanensis* Mats." [hand writing], "Type Matsumura" [red label], genitalia on slide no. 1327, mounted by Y. ARITA, 1986.

Type locality: Taiwan (Taikan).

12. *Sesia quercus* MATSUMURA, 1911 (Figures 12, 28)

Thausand Insects Japan (Suppl.) 3: 86, pl. 36, fig. 19.

Type: Holotype ♀, "Tokio, 8/23 [hand writing], Japan, Matsum", "Type Matsumura" [red label], genitalia on slide no. 1322, mounted by Y. ARITA, 1986.

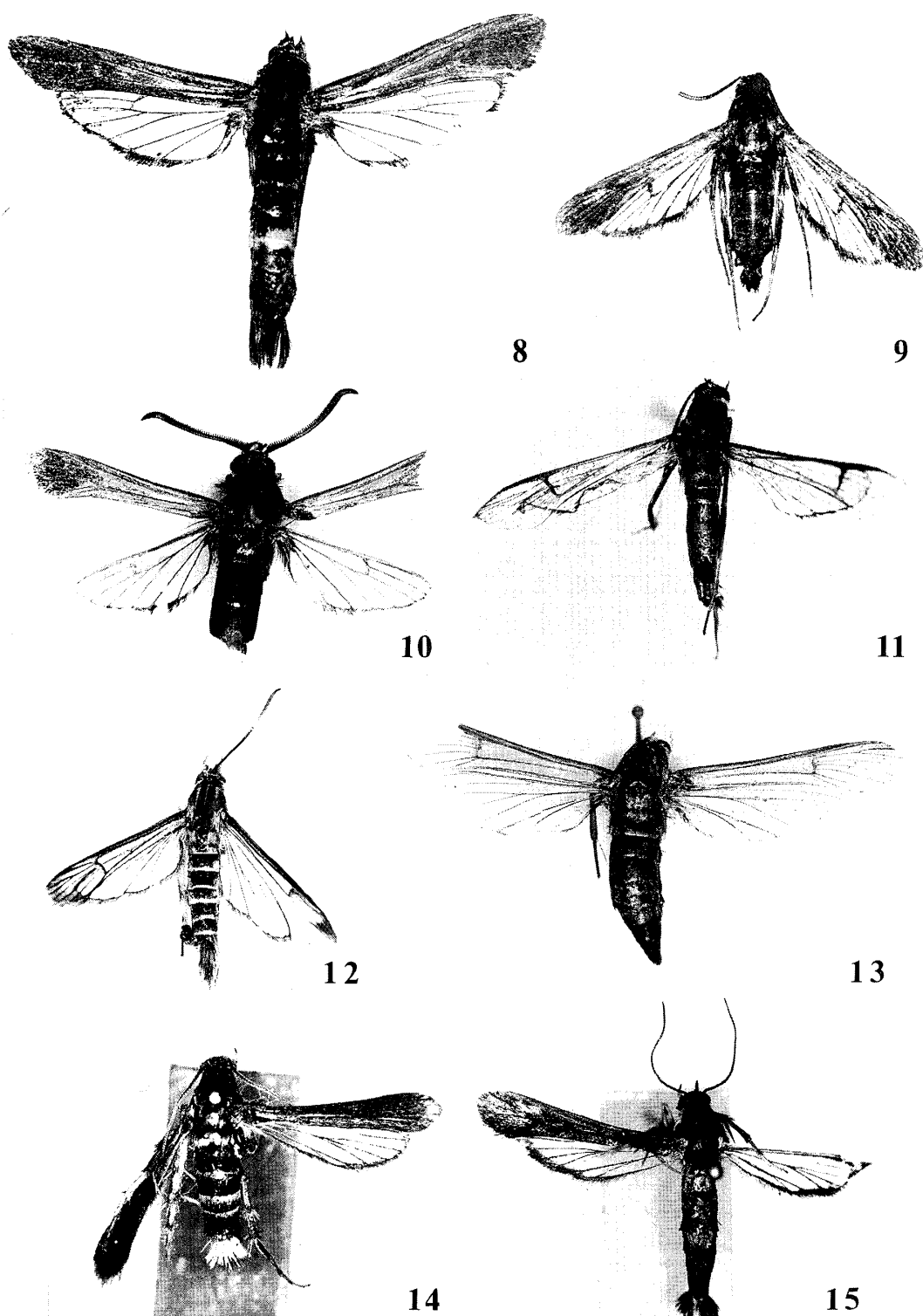
Type locality: Japan (Tokyo).

Current status: Referred to *Synanthedon* (GAEDE, 1933).

13. *Spherodoptera* [sic] *okinawana* MATSUMURA, 1931 (Figures 13, 29)

6000 illust. *Insects Japan-Empire*: 1017, f. 1868.

Type: Holotype ♀, "Okinawa" [hand writing], "*Spherodoptera okinawana* n. [hand writing], det. Matsumura", "Type Matsumura" [red label], genitalia on slide no. 1321, mounted by Y. ARITA, 1986.



Figs. 8-15. Lectotypes (8, 11) and holotypes (9, 10, 12, 13, 14, 15) of Sesiidae described by MATSUMURA.

8. *Paranthrene daisensis*; 9. *Paranthrene hirayamai*; 10. *Paranthrene yezonica*;
11. *Scasiba taikanensis*; 12. *Sesia quercus*; 13. *Spherodoptera okinawana*; 14.
Zenodoxus shakojianus; 15. *Zenodoxus taiwanellus*.

Type locality: Japan (Okinawa).

Current status: Referred to *Sesia* (HEPPNER and DUCKWORTH, 1982).

14. *Zenodoxus shakojianus* MATSUMURA, 1931 (Figures 14, 30)

6000 *illustr. Insects Japan-Empire*: 1018, f. 1871.

Type: Holotype ♀, “釋王寺 [Shakoji], Corea, 25 VII 1925 [hand writing], Col. T. Shiraki”, “*Tinthia shakojiana* n.” [hand writing], “Type Matsumura” [red label], “Holotype *Zenodoxus shakojiana* Matsumura” [red label], genitalia on slide no. 1334, mounted by Y. ARITA, 1986.

Type locality: Korea (Shakoji).

Current status: Synonym of *Zenodoxus constricta* (BUTLER, 1878) (YANO, 1960) = *Trichocerota constricta* (BUTLER, 1878), **new combination**.

15. *Zenodoxus taiwanellus* MATSUMURA, 1931 (Figures 15, 22)

6000 *illustr. Insects Japan-Empire*: 1018, f. 1872.

Type: Holotype ♂, “Formosa, Shinchiku, -18. VII 1-30., S. Sonan, K. Miyake”, “*Tinthia taiwanella* n.” [hand writing], “Type Matsumura” [red label], “Holotype *Zenodoxus taiwanellus* Matsumura” [red label], genitalia on slide no. 1228, mounted by Y. ARITA, 1986.

Type locality: Taiwan (Shinchiku).

Current status: *Tinthia taiwanellus* (MATSUMURA, 1931), **new combination**.

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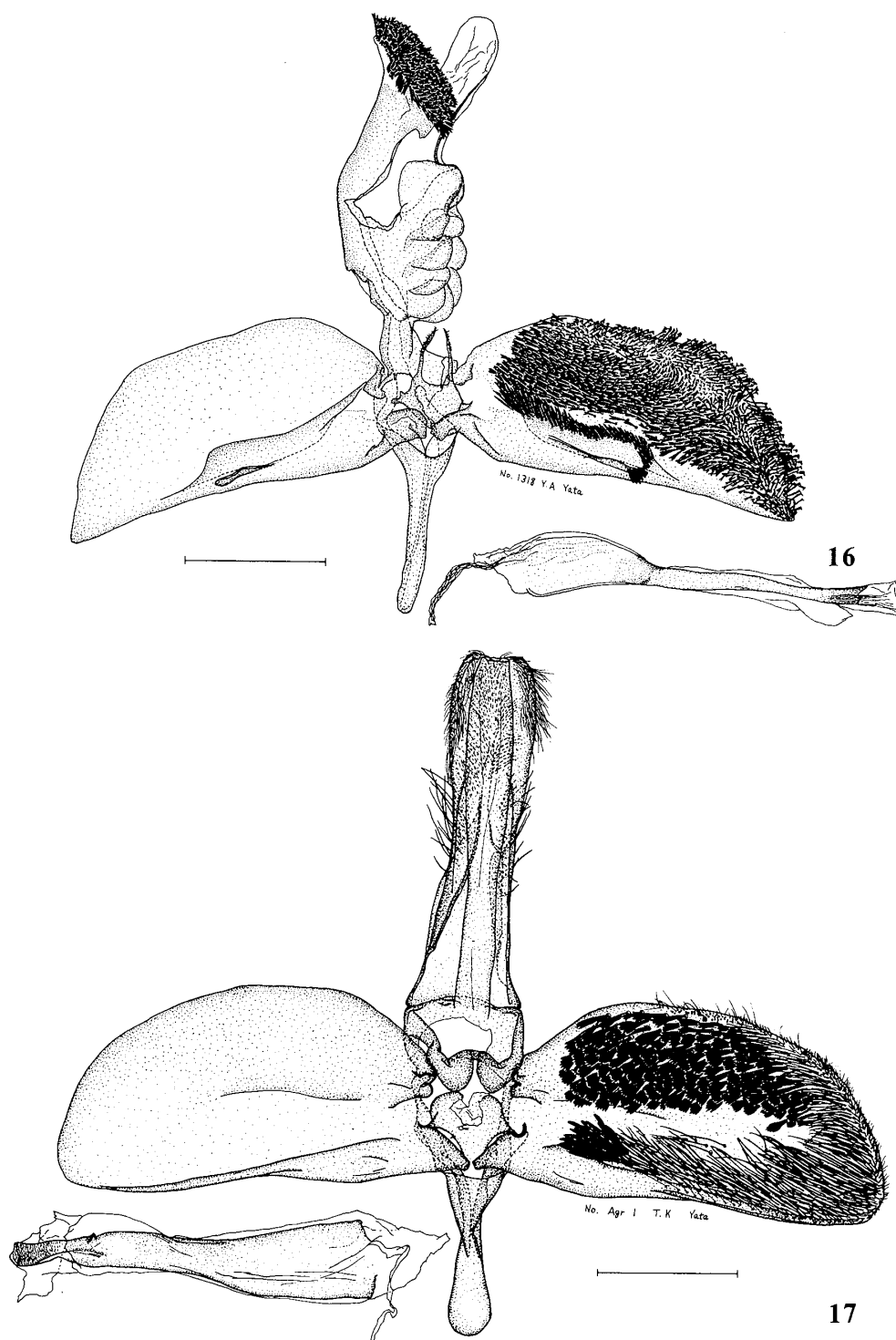
摘 要

松村松年によって記載されたスカシバガ科（鱗翅目）タイプ標本の図示（有田 豊）

松村松年は 15 種類のスカシバガ類を新種として発表した（1911, 1931*a, b*）。しかし、それらの記載は短く不十分であるだけでなく、一部の標本の状態が非常に悪く、同定の困難なものである。そこで、全種のタイプ標本とそれらの交尾器を図示した。

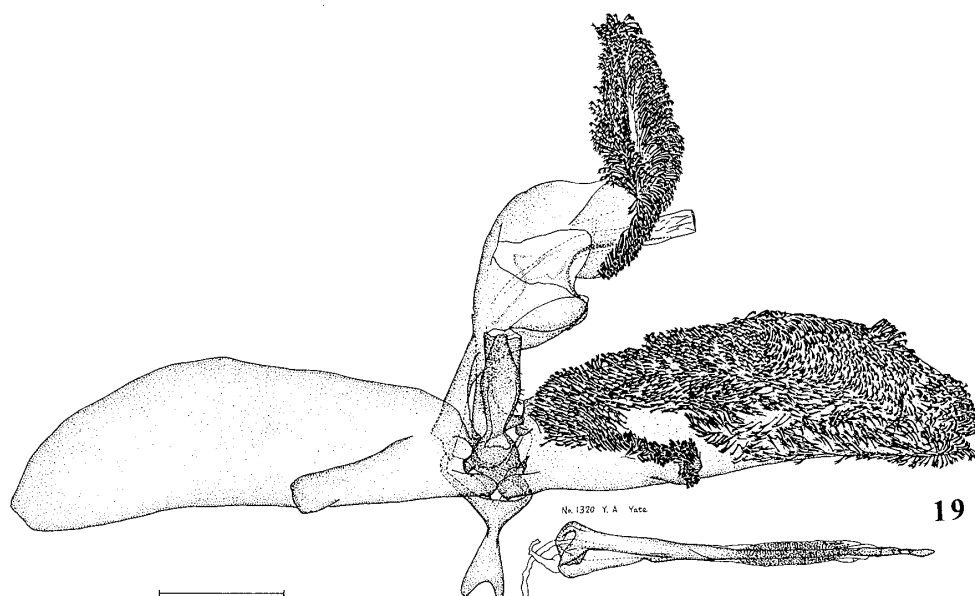
1. *Chamanthodon coreacola* MATSUMURA, 1931 チョウセンスカシバ (Figs. 1 & 16)
Scalarignathia coreacola (MATSUMURA, 1931), **comb. n.**
2. *Conopia chibensis* MATSUMURA, 1931 チバコスカシバ (Figs. 2 & 18)
Synanthedon quercus (MATSUMURA, 1911) のシノニム (YANO, 1961).
3. *Conopia chosensis* MATSUMURA, 1931 チョウセンコスカシバ (Figs. 3a-b & 23)
Synanthedon 属に移行 (HEPPNER and DUCKWORTH, 1981).
4. *Conopia galloisi* MATSUMURA, 1931 ガロアコスカシバ (Figs. 4 & 19)
Synanthedon quercus (MATSUMURA, 1911) のシノニム (YANO, 1961).
5. *Conopia mushana* MATSUMURA, 1931 ムシャコスカシバ (Figs. 5 & 24)
Synanthedon 属に移行 (HEPPNER and DUCKWORTH, 1981).
6. *Conopia producta* MATSUMURA, 1931 ヤマコスカシバ (Figs. 6 & 25)
Aegeria producta WALKER, [1865] の二次ホモニム。
置換名, *Synanthedon subproducta* INOUE (INOUE, 1982).
7. *Melittia formosana* MATSUMURA, 1911 タイワンモモブトスカシバ (Figs. 7 & 21)
8. *Paranthrene daisensis* MATSUMURA, 1931 ダイセンアトスカシバ (Figs. 8 & 26)
Paranthrene feralis (LEECH, [1889]) のシノニム (INOUE, 1958).
9. *Paranthrene hirayamai* MATSUMURA, 1931 ヒラヤマアトスカシバ (Figs. 9 & 27)
Paranthrene pernix (LEECH, [1889]) のシノニム (YANO, 1961).
10. *Paranthrene yezonica* MATSUMURA, 1931 エゾアトスカシバ (Figs. 10 & 17)
Paranthrene regale (BUTLER, 1878) のシノニム (YANO, 1965).
11. *Scasiba taikanensis* MATSUMURA, 1931 タイカンスカシバ (Figs. 11 & 20)
12. *Sesia quercus* MATSUMURA, 1911 カシコスカシバ (Figs. 12 & 28)
Synanthedon 属に移行 (GAEDE, 1933).
13. *Spherodoptera* [sic] *okinawana* MATSUMURA, 1931 オキナワスカシバ (Figs. 13 & 29)
Sesia 属に移行 (HEPPNER and DUCKWORTH, 1982).
14. *Zenodoxus shakojianus* MATSUMURA, 1931 シャコウジヒメスカシバ (Figs. 14 & 30)
Zenodoxus constricta (BUTLER, 1878) のシノニム (YANO, 1960).
Trichocerota constricta (BUTLER, 1878), **comb. n.**
15. *Zenodoxus taiwanellus* MATSUMURA, 1931 タイワンヒメスカシバ (Figs. 15 & 22)
Tinthia taiwanellus (MATSUMURA, 1931), **comb. n.**

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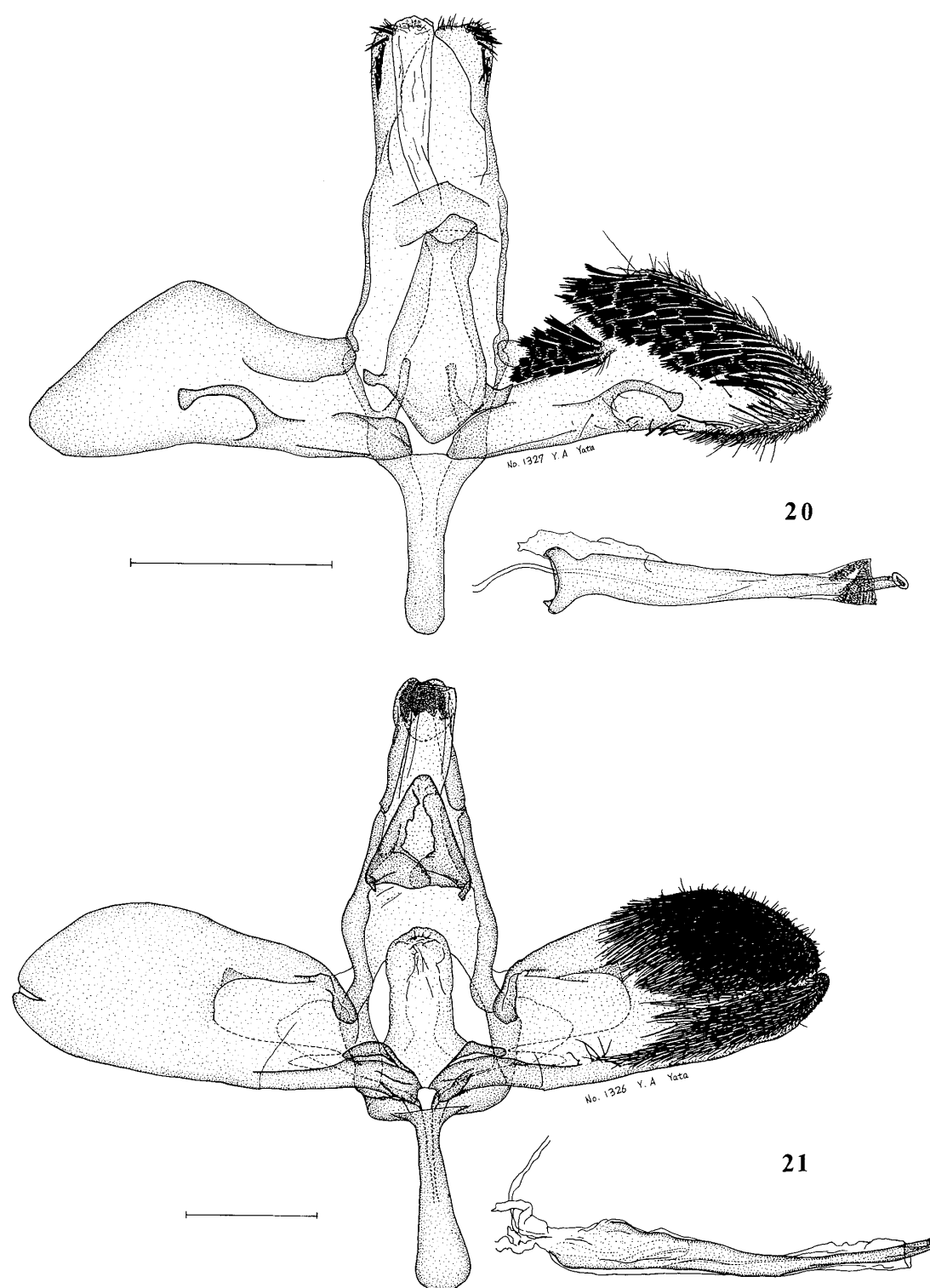
Figs. 16-17. Male genitalia of the type material of Sesiidae described by MATSUMURA (Scale line=1.0 mm).

16. *Chamanthedon coreacola*, lectotype; 17. *Paranthrene yezonica*, holotype.



Figs. 18-19. Male genitalia of the type material of Sesiidae described by MATSUMURA (Scale line=1.0 mm).

18. *Conopia chibensis*, lectotype; 19. *Conopia galloisi*, holotype.



Figs. 20-21. Male genitalia of the type material of Sesiidae described by MATSUMURA (Scale line=1.0 mm).

20. *Scasiba taikanensis*, lectotype; 21. *Melittia formosana*, holotype.

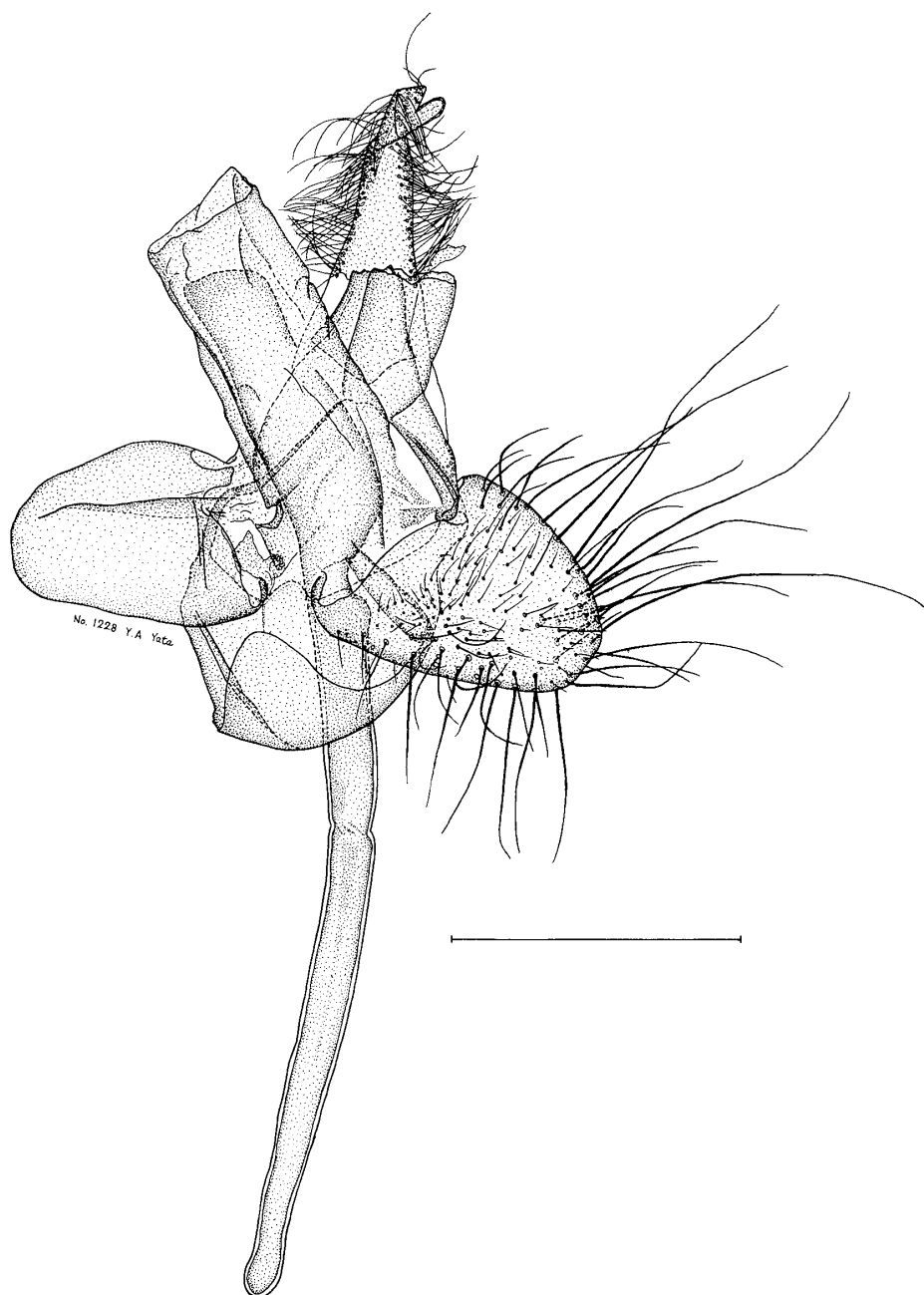
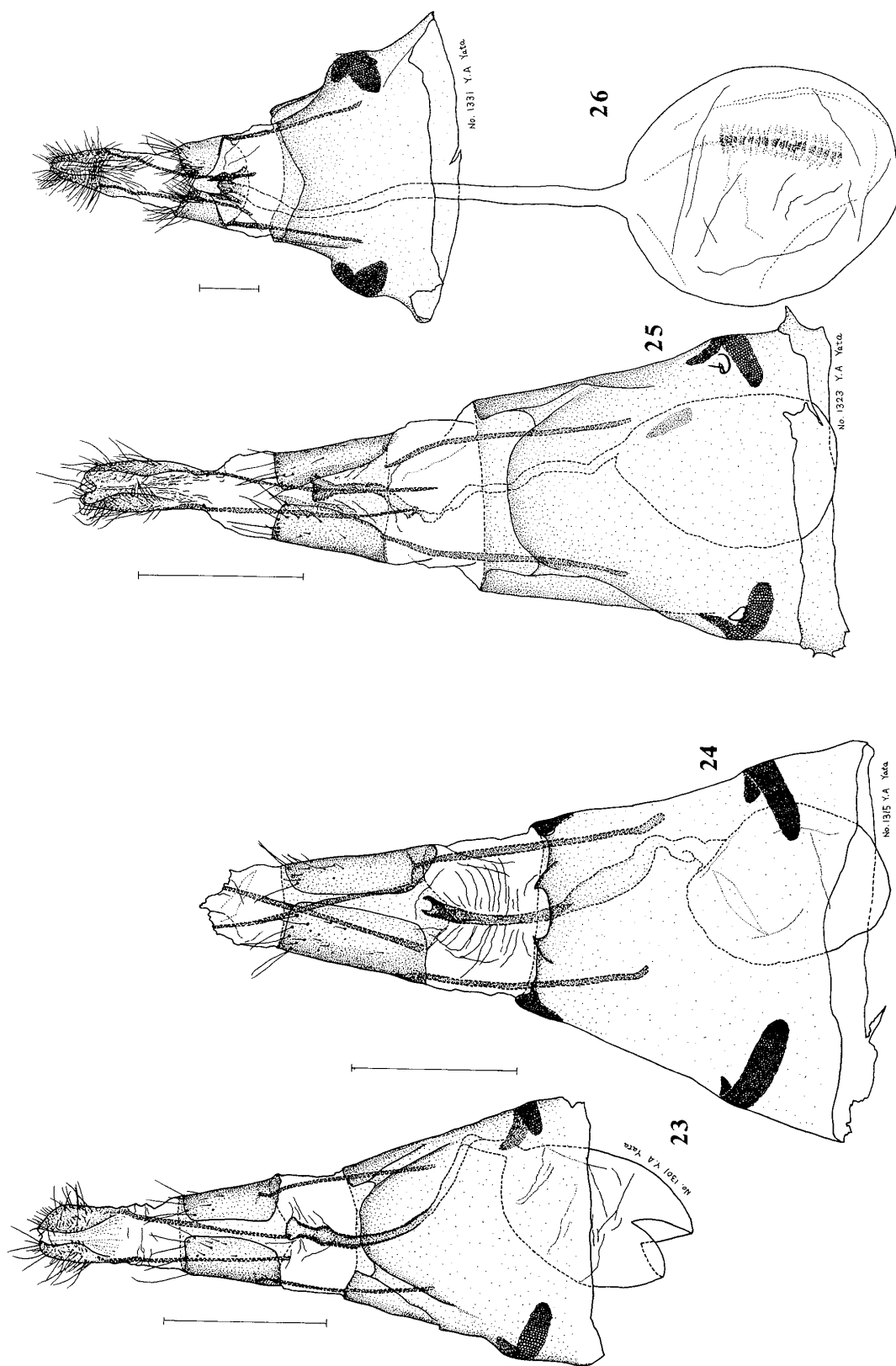
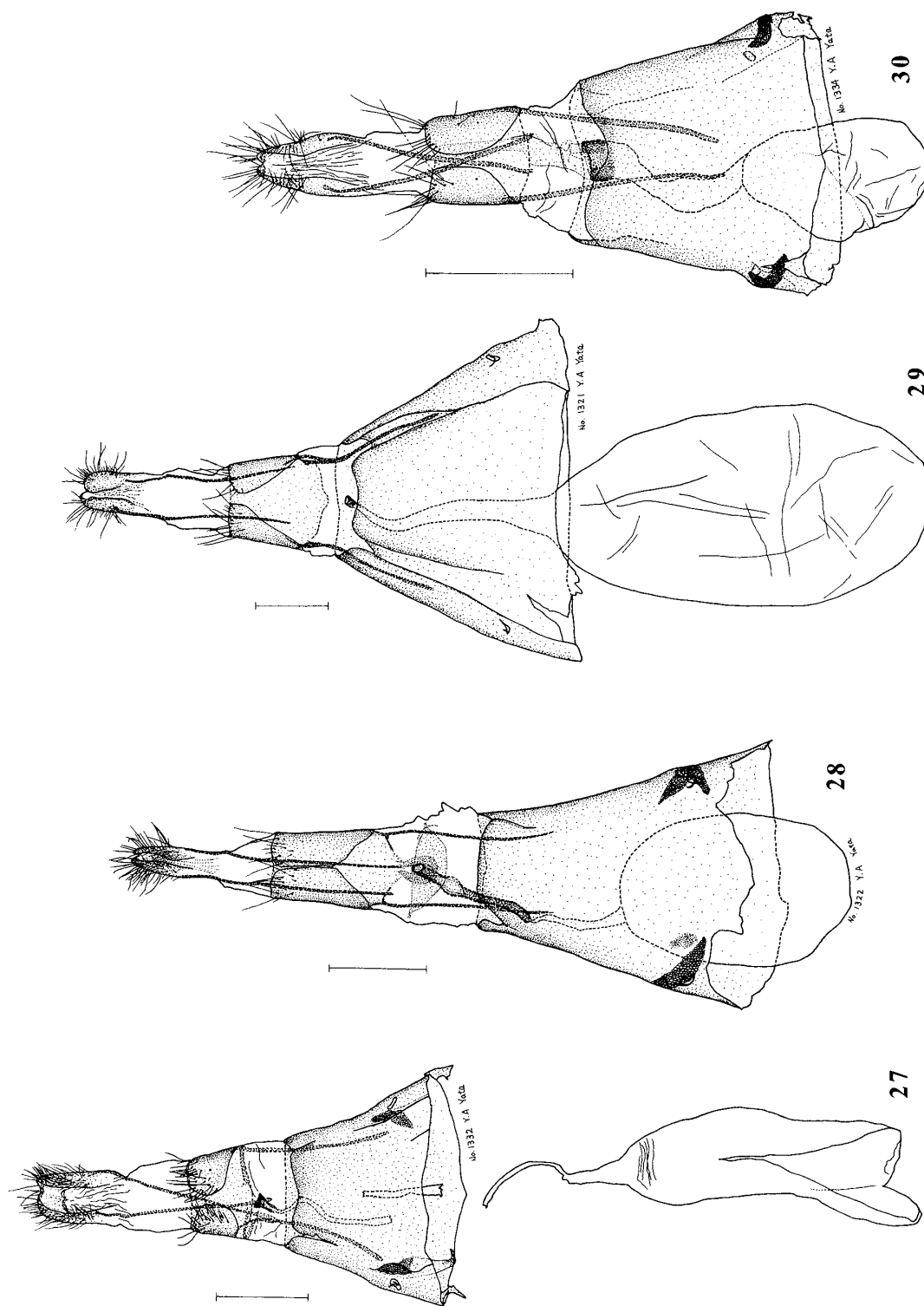


Fig. 22. Male genitalia of the type material of Sesiidae described by MATSUMURA
(Scale line=0.5 mm).
Zenodoxus taiwanellus, holotype.



Figs. 23-26. Female genitalia of the type material of Sesiidae described by MATSUMURA (Scale line=1.0 mm).
 23. *Conopia chosensis*, lectotype; 24. *Conopia mushana*, holotype; 25. *Conopia producta*, holotype; 26. *Paranthrene daisensis*, lectotype.



Figs. 27-30. Female genitalia of the type material of Sesiidae described by MATSUMURA (Scale line=1.0 mm).

27. *Paranthrene hirayamai*, holotype; 28. *Sesia quercus*, holotype; 29. *Spherodoptera okinawana*, holotype; 30. *Zenodoxus shakojianus*, holotype.